

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/559,595  
Source: LEWP  
Date Processed by STIC: 01/04/2006

# ***ENTERED***



IFWP

## RAW SEQUENCE LISTING

DATE: 01/04/2006

PATENT APPLICATION: US/10/559,595

TIME: 10:49:27

Input Set : F:\0501\_UTL\_0.ST25.txt

Output Set: N:\CRF4\01042006\J559595.raw

3 <110> APPLICANT: Ong, John  
 4 Stetsko, Gregg  
 5 Jennings, Robert  
 7 <120> TITLE OF INVENTION: Novel Methods and Compositions for Enhanced Transmucosal  
 Delivery  
 8 of Peptides and Proteins  
 10 <130> FILE REFERENCE: 0501-UTL-0  
 C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/559,595  
 C--> 12 <141> CURRENT FILING DATE: 2005-11-30  
 12 <150> PRIOR APPLICATION NUMBER: US 60/474,233  
 13 <151> PRIOR FILING DATE: 2003-05-30  
 15 <150> PRIOR APPLICATION NUMBER: PCT/ US2004/017456  
 16 <151> PRIOR FILING DATE: 2004-05-28  
 18 <160> NUMBER OF SEQ ID NOS: 292  
 20 <170> SOFTWARE: PatentIn version 3.3  
 22 <210> SEQ ID NO: 1  
 23 <211> LENGTH: 39  
 24 <212> TYPE: PRT  
 25 <213> ORGANISM: Heloderma horridum  
 28 <220> FEATURE:  
 29 <221> NAME/KEY: MOD\_RES  
 30 <222> LOCATION: (39)..(39)  
 31 <223> OTHER INFORMATION: AMIDATION  
 33 <400> SEQUENCE: 1  
 35 His Ser Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu  
 36 1 5 10 15  
 39 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser  
 40 20 25 30  
 43 Ser Gly Ala Pro Pro Pro Ser  
 44 35  
 47 <210> SEQ ID NO: 2  
 48 <211> LENGTH: 39  
 49 <212> TYPE: PRT  
 50 <213> ORGANISM: Heloderma suspectum  
 52 <400> SEQUENCE: 2  
 54 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu  
 55 1 5 10 15  
 58 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser  
 59 20 25 30  
 62 Ser Gly Ala Pro Pro Pro Ser  
 63 35  
 66 <210> SEQ ID NO: 3  
 67 <211> LENGTH: 39  
 68 <212> TYPE: PRT

CP8-6)

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Input Set : F:\0501\_UTL\_0.ST25.txt

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69 <213> ORGANISM: Artificial Sequence  
71 <220> FEATURE:  
72 <223> OTHER INFORMATION: Synthetic construct  
74 <220> FEATURE:  
75 <221> NAME/KEY: VARIANT  
76 <222> LOCATION: (1)..(1)  
77 <223> OTHER INFORMATION: His, Arg or Tyr  
79 <220> FEATURE:  
80 <221> NAME/KEY: VARIANT  
81 <222> LOCATION: (2)..(2)  
82 <223> OTHER INFORMATION: Ser, Gly, Ala or Thr  
84 <220> FEATURE:  
85 <221> NAME/KEY: VARIANT  
86 <222> LOCATION: (3)..(3)  
87 <223> OTHER INFORMATION: Asp or Glu  
89 <220> FEATURE:  
90 <221> NAME/KEY: VARIANT  
91 <222> LOCATION: (6)..(6)  
92 <223> OTHER INFORMATION: Phe, Thr or naphthylalanine  
94 <220> FEATURE:  
95 <221> NAME/KEY: VARIANT  
96 <222> LOCATION: (7)..(7)  
97 <223> OTHER INFORMATION: Thr or Ser  
99 <220> FEATURE:  
100 <221> NAME/KEY: VARIANT  
101 <222> LOCATION: (8)..(8)  
102 <223> OTHER INFORMATION: Ser or Thr  
104 <220> FEATURE:  
105 <221> NAME/KEY: VARIANT  
106 <222> LOCATION: (9)..(9)  
107 <223> OTHER INFORMATION: Asp or Glu  
109 <220> FEATURE:  
110 <221> NAME/KEY: VARIANT  
111 <222> LOCATION: (10)..(10)  
112 <223> OTHER INFORMATION: Leu, Ile, Val, pentylglycine or Met  
114 <220> FEATURE:  
115 <221> NAME/KEY: VARIANT  
116 <222> LOCATION: (14)..(14)  
117 <223> OTHER INFORMATION: Leu, Ile, pentylglycine, Val or Met  
119 <220> FEATURE:  
120 <221> NAME/KEY: VARIANT  
121 <222> LOCATION: (22)..(22)  
122 <223> OTHER INFORMATION: Phe, Tyr or naphthylalanine  
124 <220> FEATURE:  
125 <221> NAME/KEY: VARIANT  
126 <222> LOCATION: (23)..(23)  
127 <223> OTHER INFORMATION: Ile, Val, Leu, pentylglycine, t-butylglycine or Met  
129 <220> FEATURE:  
130 <221> NAME/KEY: VARIANT

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131 <222> LOCATION: (24)..(24)
132 <223> OTHER INFORMATION: Glu or Asp
134 <220> FEATURE:
135 <221> NAME/KEY: VARIANT
136 <222> LOCATION: (25)..(25)
137 <223> OTHER INFORMATION: Trp, Phe, Tyr or naphthylalanine
139 <220> FEATURE:
140 <221> NAME/KEY: VARIANT
141 <222> LOCATION: (31)..(31)
142 <223> OTHER INFORMATION: Pro, homoproline, 3Hyp, 4Hyp, thioproline, N-alkylglycine,
143     N-alkylpentylglycine, or N-alkylalanine
145 <220> FEATURE:
146 <221> NAME/KEY: VARIANT
147 <222> LOCATION: (36)..(38)
148 <223> OTHER INFORMATION: Pro, homoproline, 3Hyp, 4Hyp, thioproline, N-alkylglycine,
149     N-alkylpentylglycine or N-alkylalanine
151 <220> FEATURE:
152 <221> NAME/KEY: VARIANT
153 <222> LOCATION: (39)..(39)
154 <223> OTHER INFORMATION: Optional amidation
156 <220> FEATURE:
157 <221> NAME/KEY: VARIANT
158 <222> LOCATION: (39)..(39)
159 <223> OTHER INFORMATION: Ser, Thr or Tyr
161 <400> SEQUENCE: 3
W--> 163 Xaa Xaa Xaa Gly Thr Xaa Xaa Xaa Xaa Xaa Ser Lys Gln Xaa Glu Glu
      164 1           5           10           15
W--> 167 Glu Ala Val Arg Leu Xaa Xaa Xaa Xaa Leu Lys Asn Gly Gly Xaa Ser
      168           20           25           30
W--> 171 Ser Gly Ala Xaa Xaa Xaa Xaa
      172           35
175 <210> SEQ ID NO: 4
176 <211> LENGTH: 38
177 <212> TYPE: PRT
178 <213> ORGANISM: Artificial Sequence
180 <220> FEATURE:
181 <223> OTHER INFORMATION: Synthetic construct
184 <220> FEATURE:
185 <221> NAME/KEY: VARIANT
186 <222> LOCATION: (1)..(1)
187 <223> OTHER INFORMATION: His, Arg, or Tyr
189 <220> FEATURE:
190 <221> NAME/KEY: VARIANT
191 <222> LOCATION: (2)..(2)
192 <223> OTHER INFORMATION: Ser, Gly, Ala or Thr
194 <220> FEATURE:
195 <221> NAME/KEY: VARIANT
196 <222> LOCATION: (3)..(3)
197 <223> OTHER INFORMATION: Ala, Asp or Glu

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199 <220> FEATURE:  
200 <221> NAME/KEY: VARIANT  
201 <222> LOCATION: (5)..(5)  
202 <223> OTHER INFORMATION: Ala or Thr  
204 <220> FEATURE:  
205 <221> NAME/KEY: VARIANT  
206 <222> LOCATION: (6)..(6)  
207 <223> OTHER INFORMATION: Ala, Phe, Tyr or naphthylalanine  
209 <220> FEATURE:  
210 <221> NAME/KEY: VARIANT  
211 <222> LOCATION: (7)..(7)  
212 <223> OTHER INFORMATION: Thr or Ser  
214 <220> FEATURE:  
215 <221> NAME/KEY: VARIANT  
216 <222> LOCATION: (8)..(8)  
217 <223> OTHER INFORMATION: Ala, Ser or Thr  
219 <220> FEATURE:  
220 <221> NAME/KEY: VARIANT  
221 <222> LOCATION: (9)..(9)  
222 <223> OTHER INFORMATION: Asp or Glu  
224 <220> FEATURE:  
225 <221> NAME/KEY: VARIANT  
226 <222> LOCATION: (10)..(10)  
227 <223> OTHER INFORMATION: Ala, Leu, Ile, Val, pentylglycine or Met  
229 <220> FEATURE:  
230 <221> NAME/KEY: VARIANT  
231 <222> LOCATION: (11)..(11)  
232 <223> OTHER INFORMATION: Ala or Ser  
234 <220> FEATURE:  
235 <221> NAME/KEY: VARIANT  
236 <222> LOCATION: (12)..(12)  
237 <223> OTHER INFORMATION: Ala or Lys  
239 <220> FEATURE:  
240 <221> NAME/KEY: VARIANT  
241 <222> LOCATION: (13)..(13)  
242 <223> OTHER INFORMATION: Ala or Gln  
244 <220> FEATURE:  
245 <221> NAME/KEY: VARIANT  
246 <222> LOCATION: (14)..(14)  
247 <223> OTHER INFORMATION: Ala, Leu, Ile, pentylglycine, Val or Met  
249 <220> FEATURE:  
250 <221> NAME/KEY: VARIANT  
251 <222> LOCATION: (15)..(17)  
252 <223> OTHER INFORMATION: Ala or Glu  
254 <220> FEATURE:  
255 <221> NAME/KEY: VARIANT  
256 <222> LOCATION: (19)..(19)  
257 <223> OTHER INFORMATION: Ala or Val  
259 <220> FEATURE:

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260 <221> NAME/KEY: VARIANT
261 <222> LOCATION: (20)..(20)
262 <223> OTHER INFORMATION: Ala or Arg
264 <220> FEATURE:
265 <221> NAME/KEY: VARIANT
266 <222> LOCATION: (21)..(21)
267 <223> OTHER INFORMATION: Ala or Leu
269 <220> FEATURE:
270 <221> NAME/KEY: VARIANT
271 <222> LOCATION: (22)..(22)
272 <223> OTHER INFORMATION: Ala, Phe, Tyr or naphthylalanine
274 <220> FEATURE:
275 <221> NAME/KEY: VARIANT
276 <222> LOCATION: (23)..(23)
277 <223> OTHER INFORMATION: Ile, Val, Leu, pentylglycine, t-butylglycine or Met
279 <220> FEATURE:
280 <221> NAME/KEY: VARIANT
281 <222> LOCATION: (24)..(24)
282 <223> OTHER INFORMATION: Ala, Glu or Asp
284 <220> FEATURE:
285 <221> NAME/KEY: VARIANT
286 <222> LOCATION: (25)..(25)
287 <223> OTHER INFORMATION: Ala, Trp, Phe, Tyr or naphthylalanine
289 <220> FEATURE:
290 <221> NAME/KEY: VARIANT
291 <222> LOCATION: (26)..(26)
292 <223> OTHER INFORMATION: Ala or Leu
294 <220> FEATURE:
295 <221> NAME/KEY: VARIANT
296 <222> LOCATION: (27)..(27)
297 <223> OTHER INFORMATION: Ala or Lys
299 <220> FEATURE:
300 <221> NAME/KEY: VARIANT
301 <222> LOCATION: (28)..(28)
302 <223> OTHER INFORMATION: Ala or Asn and optionally amidated if positions 29-28 absent
304 <220> FEATURE:
305 <221> NAME/KEY: VARIANT
306 <222> LOCATION: (29)..(29)
307 <223> OTHER INFORMATION: Gly or absent and optionally amidated if positions 30-38
absent
309 <220> FEATURE:
310 <221> NAME/KEY: VARIANT
311 <222> LOCATION: (30)..(30)
312 <223> OTHER INFORMATION: Gly or absent and optionally amidated if positions 31-38
absent
314 <220> FEATURE:
315 <221> NAME/KEY: VARIANT
316 <222> LOCATION: (31)..(31)
317 <223> OTHER INFORMATION: Pro, homoproline, 3Hyp, 4Hyp, thioproline, N-alkylglycine,
318 N-alkylpentylglycine N-alkylalanine or absent and optionally
319 amidated if positions 32-38 absent

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RAW SEQUENCE LISTING ERROR SUMMARY  
 PATENT APPLICATION: US/10/559,595

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Input Set : F:\0501\_UTL\_0.ST25.txt  
 Output Set: N:\CRF4\01042006\J559595.raw

**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; Xaa Pos. 1,2,3,6,7,8,9,10,14,22,23,24,25,31,36,37,38,39  
 Seq#:4; Xaa Pos. 1,2,3,5,6,7,8,9,10,11,12,13,14,15,16,17,19,20,21,22,23,24  
 Seq#:4; Xaa Pos. 25,26,27,28,31,36,37,38  
 Seq#:5; Xaa Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,19,20,21,22,23  
 Seq#:5; Xaa Pos. 24,25,26,27,28,31,36,37,38,39  
 Seq#:244; Xaa Pos. 2,5,6,10,16,17,18,20,21,25,27,28,29,30,31,32  
 Seq#:245; Xaa Pos. 2,6,10,16,17,20,24,29,31,32  
 Seq#:246; Xaa Pos. 2,16,17,21,24,31,32  
 Seq#:247; Xaa Pos. 1,2,16,31  
 Seq#:248; Xaa Pos. 1,2,7,13,17,18,19,20,21,23,25,26,28,29,31

## VERIFICATION SUMMARY

PATENT APPLICATION: US/10/559,595

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Input Set : F:\0501\_UTL\_0.ST25.txt

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L:12 M:270 C: Current Application Number differs, Replaced Current Application No

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:163 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0

L:167 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:16

L:171 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:32

L:365 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0

L:369 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:16

L:373 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:32

L:576 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0

L:580 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:16

L:584 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:32

L:6645 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:244 after pos.:0

L:6649 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:244 after pos.:16

L:6717 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:245 after pos.:0

L:6721 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:245 after pos.:16

L:6773 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:246 after pos.:0

L:6777 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:246 after pos.:16

L:6819 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:247 after pos.:0

L:6823 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:247 after pos.:16

L:6921 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:248 after pos.:0

L:6925 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:248 after pos.:16